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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/692,990	10/20/2000	Manoj V.S. Kasichainula	CR9-97-092-US2	1978

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EXAMINER	
LAO, SUE X	

ART UNIT	PAPER NUMBER
2126	5

DATE MAILED: 12/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/692,990	KASICHAINULA ET AL.	
	Examiner	Art Unit	
	S. Lao	2126	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 October 2000*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *16-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *16,20 and 24* is/are rejected.

7)☒ Claim(s) *17-19,21-23 and 25-27* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *3*.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

1. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 16-27 are pending. This action is in response to the preliminary amendment filed 10/20/2000. Applicant has canceled claims 1-15.

3. The non-statutory double patenting rejection, whether of the obviousness-type or non-obviousness-type, is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent. *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); and *In re Goodman*, 29 USPQ2d 2010 (Fed. Cir. 1993).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(b) and © may be used to overcome an actual or provisional rejection based on a non-statutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.78(d).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 16, 20 and 24 are rejected under the judicially created doctrine of obviousness - type double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 6,157,960 to Kaminsky et al in view of claims 1-9 of U.S. Patent No. 6,324,543 to Cohen et al and Jul et al ("Fine Grained Mobility in the Emerald System").

As to claims 16, 20 and 24, Kaminsky teaches distributing one or more objects (objects) of a program (program) across more than one physical device, each object containing one or more programmed member functions (one or more programmed methods) , said method comprising the computer executable steps of:

identifying all of the objects in the program (claim 1, lines 3-5);

determining which of the objects are to reside on a first computer and which of the objects are to reside on a second computer such that the distributed system will consist of at least a first object on a first computer and a second object on a second computer (claim 1, lines 6-10);

identifying all programmed methods contained in each object that may be accessed from a remote computer (claim 1, lines 6-13);

generating a first proxy (first local proxy) and a second proxy (second remote proxy) for each object that may be accessed from a remote computer, said first proxy residing on said first computer and said second proxy residing on said second computer, said first proxy containing network linkage (containing network linkage) and indication to access programmed member functions (access corresponding one of) on said second proxy on said second computer including logic to transfer and translate (transparently accessing) complex objects which reside on said first computer (claim 1, lines 17-29); and,

accessing said remote programmed methods through said proxies (claim 1, lines 36-41).

Claims 1-15 of U.S. Patent No. 6,157,960 to Kaminsky does not teach said second proxy containing linkage and indication to access said programmed member functions on said second complex objects, which however is met by Cohen, claim 1, lines 29-32. Therefore, it would have been obvious to include the second proxy containing linkage and

indication to access into Kaminsky. Since creating (Kaminsky) and distributing (Cohen) are integral parts of a distributed system, it would have been obvious to combine the teachings.

Kaminsky as modified by Cohen does not cover the member functions having complex objects which includes one or more programmed member functions as parameters / member function parameters, which however is met by Jul et al (call-by-object-reference to pass large argument objects, section 2.4). Therefore, it would have been obvious to include, into Kaminsky as modified, member functions having complex objects which includes one or more programmed member functions. One of ordinary skill in the art would have been motivated to do so because this would have provided optimized parameter passing (Jul, page 8, 2nd para.).

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 16, 17, 20, 21, 24 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 16 recites several confusing limitations from line 20 through line 29. For example, it is not clear whether the "including" clause of lines 22-24 further defines the member function on line 22 or the second proxy on line 22 or the second computer on the same line. Similarly, it is not clear whether the "including" clause of lines 26-29 further defines the member function on line 26 or the second object on line 22. Further, it appears that claim 16 uses a variety of similar terms to refer to the same element, such as "programmed methods" (line 15) vs "said remote programmed methods" (line 30, which lacks antecedent basis), "programmed member functions" vs "member function" recited in "member function parameters". Appropriate corrections/clarifications are required. Further suggested is made to present the single sentence ranging from line 18 to line 29 in a clearer / more readable format.

Claim 17 recites "said logic in said first proxy ... to transfer and translate complex data objects" in lines 2-3 and "said logic in said second proxy ... to transfer and translate complex data objects" in lines 14-15. There is insufficient antecedent basis for each of these limitations in the claim.

Claim 17 further recites "said reference table on said second computer" in lines 30-31 and "said reference table on said first computer" in lines 38-39. There is insufficient antecedent basis for each of these limitations in the claim.

Claim 17 further recites "said third computer" in line 21. There is insufficient antecedent basis for this limitation in the claim.

It is also not clear which limitation(s) the "which" clause of claim 17, line 17 refers to. The same is true for the "which" clause on line 26.

Claim 17 also recites "said complex object" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claims 20 and 24 recite limitations similar/parallel to claim 16 and thus note the discussion with respect to claim 16 above.

Claims 21 and 25 recites limitations similar/parallel to claim 17 and thus note the discussion with respect to claim 17 above.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 16, 20 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christensen et al (U S Pat. 5,881,230) in view of Butterworth (U S Pat. 5,457,797) and Jul et al ("Fine Grained Mobility in the Emerald System").

As to claims 16, 20 and 24, Christensen teaches distributing one or more objects (objects of client application and of server application) of a program (distributed OLE application) across more than one physical device (computers 60, 66) (fig.s 4, 8), each object containing one or more programmed member functions (FOO()), said member functions having complex objects as parameters (object reference to HTML file, audio, video, col. 2, lines 21-30). Christensen further teaches (col. 9, lines 10-25; col. 10, lines 13-35; col. 11, lines 13-51):

objects in the program (objects of client application and of server application); objects (client object / client application 58) residing on a first computer (60) and objects (remote object 64) residing on a second computer (66), such that the distributed system will consist of at least a first object on a first computer and a second object on a second computer (fig. 4, col. 9, lines 10-24);

identifying all programmed methods contained in each object that may be accessed from a remote computer (remote object 64 on computer 66);

generating a first proxy (RA proxy object 68 of the RA proxy / RA remote stub pair) and a second proxy (RA remote stub object 74 of the RA proxy / RA remote stub pair) for each object that may be accessed from a remote computer (remote object 64), said first proxy residing on said first computer (60) and said second proxy residing on said second computer (66) (fig. 4, 5), said first proxy containing network linkage (RA channel) and indication to access (FOO facelet 76) programmed member functions on said second proxy (FOO stublet 78) on said second computer including logic to transfer and translate (marshaling) complex objects which reside on said first computer used as member function parameters and said second proxy containing linkage (link to OLE proxy/channel/stub) and indication to access (FOO stublet 78) said programmed member functions (X::FOO()) on said second complex objects (remote object 64) including logic to transfer and translate (unmarshaling) complex objects, said complex objects reside on said first computer and used as member function parameters (object reference 62 for X->FOO()); and,

accessing said remote programmed methods through said proxies (access remote object 64 X::FOO() via RA and OLE channels).

Christensen does not explicitly teach (1) that all the objects in the program are identified and the distribution is determined as to which objects reside on first and second computers. Christensen does not teach (2) that the complex objects include one or more programmed member functions.

As to (1), Butterworth teaches a mechanism to develop and deploy a distributed program (application), wherein all the objects in the program are identified (A, B, C) and the distribution is determined as to which objects reside on each computer (col. 9, lines 14-47). See col. 8, lines 24-49. Therefore, it would have been obvious in Christensen to determine all the objects in the program and to determine the distribution as to which objects reside on first and second computers. One of ordinary skill in the art would have been motivated to combine the teachings of Christensen and Butterworth because Christensen's program is a distributed run time program, which to one of ordinary skill in the art requires a development and deployment mechanism to make it runnable, and Butterworth provide such a mechanism with advantages of partition flexibility (col. 10, line 28 - col. 12, line 19).

As to (2), Jul teaches parameter passing semantics for object-oriented/based distributed systems, including applying pass by reference (call-by-object-reference) to complex objects (large argument objects). See section 2.4. Regarding the limitation that complex objects include one or more programmed member functions, it is conventional that an object includes one or more programmed member functions / member functions / methods. Given the teaching of Jul, it would have been obvious to include and pass complex objects having one or more programmed member functions in Christensen as modified by Butterworth. One of ordinary skill in the art would have been motivated to combine the teachings of Christensen as modified with Jul because this would have allowed optimized parameter passing semantics (page 8, 1st-3rd paragraphs) in the object-oriented distributed system of Christensen as modified.

9. Claims 16, 17, 20, 21, 24 and 25 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the respective base claims and any intervening claims.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sue Lao whose telephone number is (703) 305-9657. A voice mail service is also available at this number. The examiner's supervisor, SPE John Follansbee, can be reached on (703) 305 8498. The examiner can normally be reached on Monday - Friday, from 9AM to 5PM. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7238 for After Final communications, (703) 746-7239 for Official communications and (703) 746-7240 for Non-Official/Draft communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9600.

Sue Lao Sue Lao
November 26, 2003